

CLAIMS

- 5 1. A device for performing a task employing vibration of a tool, comprising:
- A housing containing at least one off-center weight, the off-center weight coupled to a
 motor and configured to rotate or revolve to vibrate the housing, the housing
 further including a device mount to allow the housing to be removably coupled
 to a mount on a vehicle; and
- 10 A tool, removably coupled to the housing, to perform a task, the vibration of the tool
 performing a desired task;
- Such that the housing may be coupled to a plurality of types of vehicles and such that a
 plurality of types of tools may be coupled to the housing.
- 15 2. The device of claim 1, wherein the tool is selected from the group consisting of: bores, augers,
cable layers, trenchers, blades, shakers, rollers, planars, grinders, tillers, rakes, tampers, grid layers,
scarifiers, conveyors, winches, scrapers, mixers, shaker screens, corers, destruction tools, drills,
cutters, double line cutters, pipe cleaners, and combinations thereof.

3. A method for performing a task employing vibration of a tool, comprising:

Providing a housing containing at least one off-center weight, the off-center weight
coupled to a motor and configured to rotate or revolve to vibrate the housing,

Removably mounting the housing via a device mount to a mount on a vehicle;

Removably mounting a tool to the housing via a socket on the housing, to perform a
task, the vibration of the tool performing a desired task; and

Rotating or revolving the off-center weight.

4. The method of claim 3, wherein the tool is selected from the group consisting of: bores, augers, cable layers, trenchers, blades, shakers, rollers, planars, grinders, tillers, rakes, tampers, grid layers, scarifiers, conveyors, winches, scrapers, mixers, shaker screens, corers, destruction tools, drills, cutters, double line cutters, pipe cleaners, and combinations thereof.

5. The device of claim 1, wherein the cutting tool is an asphalt cutter.

6. The device of claim 1, wherein the cutting tool is a trencher.

7. The device of claim 6, further comprising a cable-laying system, whereby cable may be laid while a trench is dug.

8. The device of claim 6, further comprising a soil-separating system, whereby soil may be separated while a trench is dug.

9. A device for performing a task employing vibration of a tool, comprising:

A housing containing at least one off-center weight, the off-center weight coupled to a motor and configured to rotate or revolve to vibrate the housing, the housing further including a device mount to allow the housing to be removably coupled to a mount on a vehicle, and such that the housing may be coupled to a plurality of types of vehicles and such that a plurality of types of tools may be coupled to the housing;

A gimbel on which the housing is at least partially mounted, the gimbel structured and configured such that the housing may rotate from one orientation to another on the gimbel;

A ratchet having an axle about which the ratchet may rotate, the ratchet rotatably coupled to the housing, such that vibration of the housing causes rotation of the axle; and

A tool, removably coupled to the axle, to perform a task.

10. The device of claim 9, wherein the tool is a drill.

11. The device of claim 9, wherein the tool is a auger.

12. The device of claim 9, wherein the tool is a winch.

13. The device of claim 9, wherein the tool is a stump remover.

14. The device of claim 9, wherein the tool is an asphalt circle cutter.

15. A method for performing a task employing vibration of a tool, comprising:

Providing a housing containing at least one off-center weight, the off-center weight coupled to a motor and configured to rotate or revolve to vibrate the housing,

Removably mounting the housing via a device mount to a mount on a vehicle;

Providing a ratchet having an axle about which the ratchet may rotate, the ratchet rotatably coupled to the housing, such that vibration of the housing causes rotation of the axle;

mounting a tool to the ratchet, to perform a task;

Rotating or revolving the off-center weight;

Removing the tool from the ratchet;

mounting a different tool to the ratchet, to perform a different task; and

Rotating or revolving the off-center weight.

16. A device for performing a task employing vibration of a tool, comprising:

A housing containing at least one off-center weight, the off-center weight coupled to a motor and configured to rotate or revolve to vibrate the housing, the housing further including a device mount to allow the housing to be removably coupled to a mount on a vehicle; and

A tool, removably coupled to the housing via a socket on the housing, to perform a task, Such that the housing may be coupled to a plurality of types of vehicles and such that a plurality of types of tools may be coupled to the housing;

Further comprising a removable leaf-spring system, including:

A leaf spring coupled to the housing; and

At least two points between which the leaf spring may oscillate.

17. The device of claim 16, wherein at least one of the tools is selected from the group consisting of: bores, augers, cable layers, trenchers, blades, shakers, rollers, planars, grinders, tillers, rakes, tampers, grid layers, scarifiers, conveyors, winches, scrapers, mixers, shaker screens, corers, destruction tools, drills, cutters, double line cutters, pipe cleaners, and combinations thereof.

18. A device for performing a drilling or boring task by use of vibration of a tool, comprising:

A housing containing at least one off-center weight, the off-center weight coupled to a motor and configured to rotate or revolve to vibrate the housing, the housing further including a device mount to allow the housing to be removably coupled to a mount on a vehicle, such that the housing may be coupled to a plurality of types of vehicles and such that a plurality of types of tools may be coupled to the housing;

a ratchet having an axle about which the ratchet may rotate, the ratchet rotatably coupled to the housing, such that vibration of the housing causes rotation of the axle; and

A drilling tool, removably coupled to the axle of the ratchet, such that rotation of the ratchet rotates the drilling tool.

19. A device for performing a cutting task employing vibration of a tool, comprising:

A housing containing at least one off-center weight, the off-center weight coupled to a motor and configured to rotate or revolve to vibrate the housing, the housing further including a device mount to allow the housing to be removably coupled to a mount on a vehicle; and

A blade, removably coupled to the housing, to perform a cutting task, such that vibration of the blade cuts desired material;

Such that the housing may be coupled to a plurality of types of vehicles.

20. The device of claim 19, further comprising at least two blades removably coupled to the housing.

21. The device of claim 19, wherein said blade is a scarifier blade.

22. A device for performing a destruction task employing vibration of a tool, comprising:

A housing containing at least one off-center weight, the off-center weight coupled to a motor and configured to rotate or revolve to vibrate the housing, the housing further including a device mount to allow the housing to be removably coupled to a mount on a vehicle; and

A destruction tool, removably coupled to the housing, to perform a destruction task, such that vibration of the destruction tool destroys desired material;

Such that the housing may be coupled to a plurality of types of vehicles.

23. A device for performing a tamping task employing vibration of a tool, comprising:

A housing containing at least one off-center weight, the off-center weight coupled to a motor and configured to rotate or revolve to vibrate the housing, the housing further including a device mount to allow the housing to be removably coupled to a mount on a vehicle; and

A tamping tool, removably coupled to the housing, to perform a tamping task, such that vibration of the tamping tool tamps desired material;

Such that the housing may be coupled to a plurality of types of vehicles.

24. The device of claim 23, wherein said tamping tool is a plate tamper.

25. The device of claim 23, wherein said tamping tool is a vibrating roller.

26. A device for performing a shaking task employing vibration of a tool, comprising:

A housing containing at least one off-center weight, the off-center weight coupled to a motor and configured to rotate or revolve to vibrate the housing, the housing further including a device mount to allow the housing to be removably coupled to a mount on a vehicle; and

A shaking tool, removably coupled to the housing, to perform a shaking task, such that vibration of the shaking tool shakes desired material;

Such that the housing may be coupled to a plurality of types of vehicles.

27. The device of claim 26, wherein the shaking tool is a tree shaker.

28. The device of claim 26, wherein the shaking tool is a drum shaker.

29. A device for performing a post and pile driving task employing vibration of a tool, comprising:

A housing containing at least one off-center weight, the off-center weight coupled to a motor and configured to rotate or revolve to vibrate the housing, the housing further including a device mount to allow the housing to be removably coupled to a mount on a vehicle; and

A post and pile driving tool, removably coupled to the housing, to perform a post and pile driving task, such that vibration of the post and pile driving tool drives desired material;

Such that the housing may be coupled to a plurality of types of vehicles.

30. A method for performing a task employing vibration of a tool, comprising:

Providing a housing containing at least one off-center weight, the off-center weight coupled to a motor and configured to rotate or revolve to vibrate the housing,

Removably mounting the housing via a gimbel to a mount on a vehicle, the gimbel structured and configured such that the housing may rotate from one orientation to another on the gimbel;

Providing a ratchet having an axle about which the ratchet may rotate, the ratchet rotatably coupled to the housing, such that vibration of the housing causes rotation of the axle;

mounting a tool to the ratchet, to perform a task;

Rotating or revolving the off-center weight;

Removing the tool from the ratchet;

mounting a different tool to the ratchet, to perform a different task; and

Rotating or revolving the off-center weight.

31. A method for performing a task employing vibration of a tool, comprising:

Providing a housing containing at least one off-center weight, the off-center weight coupled to a motor and configured to rotate or revolve to vibrate the housing,

Removably mounting the housing via a gimbel to a mount on a vehicle, the gimbel structured and configured such that the housing may rotate from one orientation to another on the gimbel;

Providing a ratchet having an axle about which the ratchet may rotate, the ratchet rotatably coupled to the housing, such that vibration of the housing causes rotation of the axle;

Mounting a tool to the ratchet, to perform a task;

Rotating or revolving the off-center weight;

Rotating the housing from a first orientation to a second orientation via the gimbel; and

Rotating or revolving the off-center weight.

32. A device for performing a task employing rotation of a tool, comprising:

A housing containing at least one off-center weight, the off-center weight coupled to a motor and configured to rotate or revolve to vibrate the housing, the housing further including a device mount to allow the housing to be removably coupled to a mount on a vehicle, and such that the housing may be coupled to a plurality of types of vehicles and such that a plurality of types of tools may be coupled to the housing;

A ratchet having a first axle about which the ratchet may rotate, the ratchet rotatably coupled to the housing, such that vibration of the housing causes rotation of the first axle;

A belt coupled to said first axle;

A second axle coupled to said belt; and

A tool, removably coupled to the second axle, to perform a task.

33. A method for performing a task employing rotation of a tool, comprising:

Providing a housing containing at least one off-center weight, the off-center weight coupled to a motor and configured to rotate or revolve to vibrate the housing,

Removably mounting the housing via a device mount to a mount on a vehicle;

Providing a ratchet having a first axle about which the ratchet may rotate, the ratchet rotatably coupled to the housing, such that vibration of the housing causes rotation of the first axle;

Providing a belt coupled to said first axle;

Providing a second axle coupled to said belt;

Removably mounting a tool to said second axle, to perform a task; and

Rotating or revolving the off-center weight.